Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

		STAT	EMENT UNDE	R 37 CFR 3.73(b)		
Applican	nt/Patent Own	er: THOMSON LICENSING	Cus	stomer No. 24336 Doc	ket No. PD030117	
Application No./Patent No.: 10/584,658				_ Filed/Issue Date: May 9), 2007	
Titled:	ENCODING SEQUENC	•	ETHOD, AND E	ENCODING APPARATU	S FOR A DIGITAL PICTURE	
THOMS	ON LICENS	ING	, a Corpora	ation		
(Name of A	Assignee)		(Type of	Assignee, e.g., corporation, partne	rship, university, government agency, etc.	
states th	at it is:					
1.	the assign	ee of the entire right, title, and	interest in;			
2.		an assignee of less than the entire right, title, and interest in (The extent (by percentage) of its ownership interest is %); or				
3.	the assign	ee of an undivided interest in tl	ne entirety of (a co	omplete assignment from o	ne of the joint inventors was made)	
the pater	nt application	patent identified above, by virt	ue of either:			
A	the United	ment from the inventor(s) of the States Patent and Trademark fore is attached.	e patent application Office at Reel	on/patent identified above , Frame _	The assignment was recorded in, or for which a	
OR B. 🔀	Δ chain of	title from the inventor(s) of the	natent applicatio	n/natent identified above to	the current assignee as follows:	
D. 🔼	1. From:			To: Thomson Lice	<u>-</u>	
		The document was recorded in				
		Reel <u>019369</u> ,				
	2. From:			To:		
		The document was recorded in	the United State			
		Reel,	Frame	, or for whic	ch a copy thereof is attached.	
	3. From:			To:		
		The document was recorded in	the United State	s Patent and Trademark Of	fice at	
		Reel,	Frame	, or for whic	ch a copy thereof is attached.	
	Additiona	I documents in the chain of title	e are listed on a s	upplemental sheet(s).		
		37 CFR 3.73(b)(1)(i), the door is being, submitted for records			he original owner to the assignee was,	
		arate copy (<i>i.e.</i> , a true copy of the drawn than the hard the drawn than true copy of the drawn than the copy of			pe submitted to Assignment Division in <u>ee</u> MPEP 302.08]	
The unde	ersigned (who	ose title is supplied below) is au	uthorized to act or	behalf of the assignee.		
/Patricia A. Velangieri, Reg. No. 42201/					October 31, 2011	
5	Signature				Date	
		eri (Reg. No. 42201)			Senior Patent Counsel	
F	Printed or Tvr	ned Name			Title	

This collection of information is required by 37 CFR 3.73(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

- The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
- 2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
- 3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
- 4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
- 5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
- 6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
- 7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
- 8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
- 9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

POWER OF ATTORNEY THOMSON LICENSING

We,

THOMSON LICENSING

1-5 rue Jeanne d'Arc

92130 ISSY LES MOULINEAUX

France

do hereby grant

Robert D. Shedd

Vice President, U.S. Patent Operations

Thomson Licensing LLC Two Independence Way Princeton, New Jersey 08540

a revocable, non-exclusive and delegable power of attorney to act for us (including the signing of requisite documents) in proceedings concerning patents and applications for patents, including international and other multi-country patents and applications for patents, in our name in the Patent Offices in all countries worldwide from December 14, 2009.

DATED this 14 day of De outer, in the year 2009.

Signature:

Typed Name As Signed:

Title:

Béatrix de Russé

Executive Vice-President

Licensing, Research & Innovation

POWER OF ATTORNEY THOMSON LICENSING

THOMSON LICENSING 1-5 rue Jeanne d'Arc 92130 ISSY LES MOULINEAUX France

does hereby grant

Harvey D. Fried - Sr. Patent Counsel/Manager Robert B. Levy - Sr. Patent Counsel/Manager Frank Y. Liao - Sr. Patent Counsel/Manager Reitseng Lin - Sr. Patent Counsel Guy H. Eriksen - Lead Patent Counsel Catherine A. Cooper - Sr. Patent Counsel Kuniyuki Akiyama - Lead Patent Counsel Paul P. Kiel - Sr. Patent Counsel Jeffrey M. Navon - Sr. Patent Counsel Joel M. Fogelson - Sr. Patent Counsel Joseph J. Opalach - Sr. Patent Counsel Sammy S. Henig - Sr. Patent Counsel Patricia A. Verlangieri - Sr. Patent Counsel Brian J. Dorini, Sr. Patent Counsel Jorge Tony Villabon - Patent Counsel Vincent E. Duffy - Patent Counsel Richard LaPeruta - Patent Counsel Brian J. Cromarty - Patent Counsel Ronald Kolczynski - Patent Counsel Michael A. Pugel - Patent Counsel Paul W. Lyons - Patent Agent Jeffrey D. Hale - Patent Counsel Wan Yee Cheung - Patent Counsel Jerome G. Schaefer - Patent Counsel James M. McKenzie, Patent Counsel Thomson Licensing LLC Two Independence Way Princeton, New Jersey 08540

a revocable, non-exclusive and delegable power of attorney to act for us (including the signing of requisite documents) in proceedings concerning patents and applications for patents, including international and other multi-country patents and applications for patents, in our name in the Patent Offices in all countries worldwide from January 1, 2007.

DATED this

day of

2010

SIGNED

Robert D. Shedd

Vice President, U.S. Patent Operations

Thomson Licensing LLC and

Attorney In Fact for

THOMSON LICENSING

WITNESS

Davida

POWER OF ATTORNEY

THOMSON LICENSING

THOMSON LICENSING 1-5 rue Jeanne d'Arc 92130 ISSY LES MOULINEAUX France

does hereby grant

Harvey D. Fried - Sr. Patent Counsel/Manager Robert B. Levy - Sr. Patent Counsel/Manager Frank Y. Liao - Sr. Patent Counsel/Manager Reitseng Lin - Sr. Patent Counsel Guy H. Eriksen - Sr. Patent Counsel Catherine A. Cooper - Sr. Patent Counsel Kuniyuki Akiyama - Sr. Patent Counsel Paul P. Kiel - Sr. Patent Counsel Jeffrey M. Navon - Sr. Patent Counsel Joel M. Fogelson - Sr. Patent Counsel Joseph J. Opalach - Sr. Patent Counsel Sammy S. Henig - Sr. Patent Counsel Patricia A. Verlangieri - Sr. Patent Counsel Brian J. Dorini, Sr. Patent Counsel Jorge Tony Villabon - Patent Counsel Vincent E. Duffy - Patent Counsel Richard LaPeruta - Patent Counsel Brian J. Cromarty - Patent Counsel Ronald Kolczynski - Member Patent Staff Michael A. Pugel - Patent Agent Paul W. Lyons - Patent Agent Jeffrey D. Hale - Patent Counsel Wan Yee Cheung - Patent Counsel Jerome G. Schaefer - Patent Counsel James M. McKenzie, Patent Counsel Shan He, Patent Counsel Xiaoan Lu, Patent Counsel Thomson Licensing LLC Two Independence Way Princeton, New Jersey 08540

baz

John G. Tutunjian – Reg. No. 39405 James J. Bitetto – Reg. No. 40513 Gaspare J. Randazzo – Reg. No. 41528 Tutunjian & Bitetto, P.C. 425 Broadhollow Road, Suite 302 Melville, NY 11747

POWER OF ATTORNEY

a revocable, non-exclusive and delegable power of attorney to act for us (including the signing of requisite documents) in proceedings concerning patents and applications for patents, including international and other multi-country patents and applications for patents, in our name in the Patent Offices in all countries worldwide from April 1, 2011.

DATED this _____

day of

<u>₹</u>, 2011.

SIGNED

Robert D. Shedd

Vice President, U.S. Patent Operations

Thomson Licensing LLC and

Attorney In Fact for

THOMSON LICENSING

WITNESS

ASSIGNMENT OF APPLICATION FOR UNITED STATES LETTER PATENT

WHEREAS Heiko Schwarz, Klaustaler Str. 30, 13187 Berlin, Germany; Tobias Hinz, Auerstr. 41, 10249 Berlin, Germany; Thomas Wiegand, Nuemberger Str. 18, 10789 Berlin, Germany; hereinafter (collectively) referred to as the assignor, has invented a certain improvement relating to

Encoding method, decoding method, and encoding apparatus for a digital picture sequence

for which said assignor has caused an application for United States Letters Patent to be prepared, the specification of which was filed on 04/NOV/2004 as Application Serial No. PCT/EP 04/012480, or, if not identified here by filing date and serial number, the inventor's declaration for said application being executed concurrently with the execution of this instrument; said application to be filed in the United States Patent and Trademark Office.

AND WHEREAS

Thomson Licensing 46 Quai A. le Gallo F-92100 Boulogne-Billancourt France

hereinafter referred to as the assignee, is desirous of acquiring the entire right, title and interest in and to said application, including any and all divisions and continuations thereof, and in and to said invention and any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof;

NOW THIS WITNESSETH, that for good and valuable consideration paid by said assignee to said assignor, the receipt of which is hereby acknowledged, said assignor hereby assigns, sells and transfers to said assignee, and said assignee's successors and assigns, the entire and exclusive right, title and interest in and to said application, including any and all divisions and continuations thereof, and in and to said invention and any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof; said assignee, and said assignee's successors and assigns, to have, hold, exercise and enjoy the said application, including any and all divisions and continuations thereof, and the said invention and any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof, with all the rights, powers, privileges and advantages in anywise arising from or appertaining thereto, for and during the term or terms of any and all such patents when granted, including any and all renewals, reissues and prolongations thereof, for the use and benefit of said assignee, and said assignee's successors and assigns, in as ample and beneficial a manner as the said assignor might or could have held and enjoyed the same, if this assignment had not been made.

AND said assignor hereby agrees to perform, upon the request of said assignee, or said assignee's successors or assigns, any and all acts relating to the obtaining or to the asserting of said patents, including any and all renewals, reissues and prolongations thereof.

AND said assignor authorizes and requests the Commissioner of Patents and Trademarks to issue Letters Patent on said application, and on any and all divisions and continuations thereof, to said assignee, and said assignee's successors and assigns, in accordance herewith.

EXECUTED, this 27 day	of July , 2006						
WITNESSES:	ASSIGNOR:						
Signature: Lu	Signature: <u>//////</u>						
Name: PATRICK NDJIKI-NYA Name: Heiko Schwarz Address: Spechtstr. 128, 13505 (Grlin							
Signature: <u> <i>P./1264Q/P70</i></u> 2							
Name: COADULA AATAJCZAK							
Address: <i>KELBIHOF 4, 80584</i> ,	KELBIHOF 4, 30539 HANNOVER						
EXECUTED, thisday	/ of, 2006.						
WITNESSES:	ASSIGNOR:						
Signature:	Signature:						
Name: Address:	Name: Tobias Hinz						
Signature:							
Name: Address:							
EXECUTED, thisda	y of, 2006.						
WITNESSES:	ASSIGNOR:						
Signature:	Signature:						
Name: Address:	Name: Thomas Wiegand						
Signature:							
Name: Address:							

ASSIGNMENT OF APPLICATION FOR UNITED STATES LETTER PATENT

WHEREAS Heiko Schwarz, Klaustaler Str. 30, 13187 Berlin, Germany; Tobias Hinz, Auerstr. 41, 10249 Berlin, Germany; Thomas Wiegand, Nuernberger Str. 18, 10789 Berlin, Germany; hereinafter (collectively) referred to as the assignor, has invented a certain improvement relating to

Encoding method, decoding method, and encoding apparatus for a digital picture sequence

for which said assignor has caused an application for United States Letters Patent to be prepared, the specification of which was filed on D4/NOV/2004 as Application Serial No. PCT/EP 04/012480, or, if not identified here by filing date and serial number, the inventor's declaration for said application being executed concurrently with the execution of this instrument; said application to be filed in the United States Patent and Trademark Office.

AND WHEREAS

Thomson Licensing
46 Quai A. le Gallo
F-92100 Boulogne-Billancourt
France

hereinafter referred to as the assignee, is desirous of acquiring the entire right, title and interest in and to said application, including any and all divisions and continuations thereof, and in and to said invention and any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof;

NOW THIS WITNESSETH, that for good and valuable consideration paid by said assignee to said assignor, the receipt of which is hereby acknowledged, said assignor hereby assigns, sells and transfers to said assignee, and said assignee's successors and assigns, the entire and exclusive right, title and interest in and to said application, including any and all divisions and continuations thereof, and in and to said invention and any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof, said assignee, and said assignee's successors and assigns, to have, hold, exercise and enjoy the said application, including any and all divisions and continuations thereof, and the said invention and any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof, with all the rights, powers, privileges and advantages in anywise arising from or appertaining thereto, for and during the term or terms of any and all such patents when granted, including any and all renewals, reissues and prolongations thereof, for the use and benefit of said assignee, and said assignee's successors and assigns, in as ample and benefitial a manner as the said assignor might or could have held and enjoyed the same, if this assignment had not been made.

AND said assignor hereby agrees to perform, upon the request of said assignee, or said assignee's successors or assigns, any and all acts relating to the obtaining or to the asserting of said patents, including any and all renewals, reissues and prolongations thereof.

AND said assignor authorizes and requests the Commissioner of Patents and Trademarks to issue Letters Patent on said application, and on any and all divisions and continuations thereof, to said assignee, and said assignee's successors and assigns, in accordance herewith.

EXECUTED, thisday of	, 2006					
WITNESSES:	ASSIGNOR:					
Signature:	Signature:					
Name: Address:	Name: Heiko Schwarz					
Signature:						
Name: Address:	 					
EXECUTED, this 24 day of	<u>, 2006.</u>					
WITNESSES:	ASSIGNOR:					
Signature: <u>(59. 2/)/</u>	Signature: 755 4					
Name: SUSANNE WINTE Address: W GIESENING - STA. 30	Name: Tobias Hinz					
30159 11/9NNOVER						
Signature: <i>Ρ. Ποδοχέχο</i> ξ						
Name: (08) ULI ARTITICEMU Address: WELBINOF 4, 30539 NANNOVEM						
EXECUTED, thisday of	, 2006.					
WITNESSES:	ASSIGNOR:					
Signature:	Signature:					
Name: Address:	Name: Thomas Wiegand					
Signature:						
Name: Address:						

ASSIGNMENT OF APPLICATION FOR UNITED STATES LETTER PATENT

WHEREAS Heiko Schwarz, Klaustaler Str. 30, 13187 Berlin, Germany; Tobias Hinz, Auerstr. 41, 10249 Berlin, Germany; Thomas Wiegand, Numberger Str. 18, 10789 Berlin, Germany; hereinafter (collectively) referred to as the sesignor, has invented a certain improvement relating to

Encoding method, decoding method, and encoding apparatus for a digital picture sequence

for which said assignor has caused an application for United States Letters Patent to be prepared, the specification of which was filed on 04/NOV/2004 as Application Serial No. PCT/EP 04/012480, or, if not identified here by filing date and serial number, the inventor's declaration for said application being executed concurrently with the execution of this instrument; said application to be filed in the United States Patent and Trademark Office.

AND WHEREAS

Thomson Licensing 46 Quai A. le Gallo F-92100 Boulogne-Billancourt France

hereinafter referred to as the assignee, is desirous of acquiring the entire right, title and interest in and to said application, including any and all divisions and continuations thereof, and in and to said invention and any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof:

NOW THIS WITNESSETH, that for good and valuable consideration paid by said assignee to said assignor, the receipt of which is hereby acknowledged, said assignor hereby assigns, sells and transfers to said assignee, and said assignee's successors and assigns, the entire and exclusive right, title and interest in and to said application, including any and all divisions and continuations thereof, and in and to said invention and any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof; said assignee, and said assignee's successors and assigns, to have, hold, exercise and enjoy the said application, including any and all divisions and continuations thereof, and the said invention and any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof, with all the rights, powers, privileges and advantages in anywise arising from or appertaining thereto, for and during the term or terms of any and all such patents when granted, including any and all renewals, reissues and prolongations thereof, for the use and benefit of said assignee, and said assignee's successors and assigns, in as ample and beneficial a manner as the said assignor might or could have held and enjoyed the same, if this assignment had not been made.

AND said assignor hereby agrees to perform, upon the request of said assignee, or said assignee's successors or assigns, any and all acts relating to the obtaining or to the asserting of said patents, including any and all renewals, reissues and prolongations thereof.

AND said assignor authorizes and requests the Commissioner of Patents and Trademarks to issue Letters Patent on said application, and on any and all divisions and continuations thereof, to said assignee, and said assignee's successors and assigns, in accordance herewith.

EXECUTED, this	_day of	, 2006.
WITNESSES:		ASSIGNOR
Signature:	·	Signature:
Name: Address:		Name: Heiko Schwarz
Signature:		
Address:		
EXECUTED, this	_day of	, 2006.
WITNESSES:		ASSIGNOR:
Signature:		Signature:
Name: Address:		Name: Tobias Hinz
Signature: Name: Address:		
EXECUTED, this 2/	day of /	<u>n./.</u> , 2006.
WITNESSES:	€.	ASSIGNOR:
Signature:	لب	Signature:
Name: D. Topp Z. Address: Sat J. 12161 3.	OF opport	Name: Thomas Wiegand
Signature: M2	o de la companya de l	
Name: Michael Zamadhi Address: Tragames 5		